US ERA ARCHIVE DOCUMENT

NAFTA Technical Working Group on Pesticides Grupo de Trabajo Técnico del TLCAN sobre Plaguicidas Le groupe de travail technique de l'ALENA sur les pesticides

Biopesticides Registration Improvement Course PRODUCT CHARACTERIZATION AND ANALYSIS 4.1



JOHN L. KOUGH, PH.D.

U.S. Environmental Protection Agency
Office of Pesticide Programs
Biopesticide and Pollution Prevention Division



OVERVIEW

- US Data Requirements (40 CFR 158.2120)
 - Online CFR: Electronic Code of Federal Regulations /GPO
 - Guidelines:

http://www.epa.gov/ocspp/pubs/frs/publications/Test Guidelines/series885.htm

- Presubmission meeting information/feedback
- Flexibility in data needs
 - Current taxonomic data, methods vary
 - Non-guideline data
 - Additional data often needed

US Data Requirements 40 CFR 158.2120

Guideline		All Use	Test Substance		T4
Number	Data Requirement	Patterns	MP	EP	Test Notes
Product Chemistry and Composition					
885.1100	Product Identity	R	MP	EP	
885.1200	Manufacturing process	R	TGAI and MP	TGAI and EP	
885.1250	Deposition of a sample in a nationally recognized culture collection	R	TGAI	TGAI	
885.1300	Discussion of formation of unintentional ingredients	R	TGAI and MP	TGAI and EP	
Analysis and Certified Limits					
885.1400	Analysis of samples	R	TGAI and MP	TGAI and EP	1
885.1500	Certification of limits	R	MP	EP	
Physical and Chemical Characteristics					
830.6302	Color	R	TGAI	TGAI	
830.6303	Physical state	R	TGAI	TGAI	
830.6304	Odor	R	TGAI	TGAI	
830.6313	Stability to normal and elevated temperatures, metals and metal ions	R	TGAI	TGAI	
830.6317	Storage stability	R	TGAI and MP	TGAI and EP	
830.6319	Miscibility	R	MP	EP	2
830.6320	Corrosion Characteristics	R	MP	EP	3
830.7000	рН	R	TGAI	TGAI	
830.7100	Viscosity	R	MP	EP	4
830.7300	Density/relative density/bulk density (specific gravity)	R	TGAI	TGAI	



MICROBIAL PESTICIDE IDENTIFICATION AND PRODUCTION

- Taxonomic identification of isolate must be accurate
 - Extremely important for use of literature or data from a similar strain
 - Best done as an initial company evaluation to see if it is worth continuing product development
 - If close relatives are pathogens, extra testing might be required
- The potential for contamination must be minimized
 - OECD (PMRA) is finalizing a new guidance document





COMMON PROBLEMS / ISSUES

- Quality control limits for microbial contamination, procedures if limits exceeded
- Bioactivity as a QC measure
- Deposition of strains (viruses, protists)
- CSF active ingredients, certified limits, related calculations
- Strain equivalence



COMMON PROBLEMS / ISSUES

- Known food allergens in formulation
- Discussion of toxic metabolites related to Al or near relatives
- Host range discussion for broad host range pathogens
- Storage stability data and label claims